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DE JONG, *et al.*
PRELIMINARY AMENDMENT

acid into a cell; and

(c) measuring the product of the reporter gene as an indication of DNA expression in the cell, whereby delivery and expression of nucleic acid molecules in the cell is detected or determined.

9. (Amended) The method of claim 1, wherein step (a) further comprises contacting the nucleic acid molecule with a delivery agent that comprises a cationic compound.

10. (Amended) The method of claim 9, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4 \bullet 4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2 \bullet 4CF_3CO_2H$, $C_{40}H_{84}NO_3P \bullet CF_3CO_2H$, $C_{50}H_{103}N_7O_3 \bullet 4CF_3CO_2H$, $C_{55}H_{116}N_8O_2 \bullet 6CF_3CO_2H$, $C_{49}H_{102}N_6O_3 \bullet 4CF_3CO_2H$, $C_{44}H_{89}N_5O_3 \bullet 2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{206}N_{12}O_4S_2 \bullet 8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9 \bullet 13CF_3CO_2H$, $C_{43}H_{88}N_4O_2 \bullet 2CF_3CO_2H$, $C_{43}H_{88}N_4O_3 \bullet 2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

11. (Amended) The method of claim 1, wherein the nucleic acid molecules are natural chromosomes, artificial chromosomes, fragments of a chromosome or naked DNA that is greater than at least about 0.6 megabase in size.

21. (Amended) The method of claim 20, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4 \bullet 4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2 \bullet 4CF_3CO_2H$, $C_{40}H_{84}NO_3P \bullet CF_3CO_2H$, $C_{50}H_{103}N_7O_3 \bullet 4CF_3CO_2H$, $C_{55}H_{116}N_8O_2 \bullet 6CF_3CO_2H$, $C_{49}H_{102}N_6O_3 \bullet 4CF_3CO_2H$, $C_{44}H_{89}N_5O_3 \bullet 2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{206}N_{12}O_4S_2 \bullet 8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9 \bullet 13CF_3CO_2H$, $C_{43}H_{88}N_4O_2 \bullet 2CF_3CO_2H$, $C_{43}H_{88}N_4O_3 \bullet 2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

27. (Amended) The method of claim 26, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine